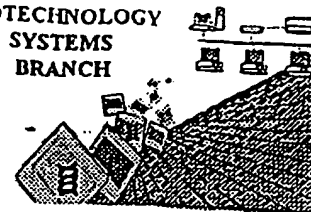# RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/659,324

Source: OIPE

Date Processed by STIC: 9-22-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
            Or
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

BEST AVAILABLE COPY

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/659,324

DATE: 09/22/2003
TIME: 13:10:52

Input Set : A:\pto.yf.txt
Output Set: N:\CRF4\09222003\J659324.raw

```
    3 <110> APPLICANT: Birger Sorensen
    5 <120> TITLE OF INVENTION: HIV Peptides, antigens, vaccine compositions, immunoassay
kit and a
    6        method of
    7        detecting antibodies induced by HIV.
    9 <130> FILE REFERENCE: 2833.4001LO
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/659,324
   12 <141> CURRENT FILING DATE: 2003-09-11
   14 <150> PRIOR APPLICATION NUMBER: US 09/674,674
   15 <151> PRIOR FILING DATE: 2001-07-25
   17 <160> NUMBER OF SEQ ID NOS: 49
   19 <170> SOFTWARE: PatentIn Ver. 3.1
   21 <210> SEQ ID NO: 1
   22 <211> LENGTH: 20
   23 <212> TYPE: PRT
   24 <213> ORGANISM: artificial sequence
   26 <220> FEATURE:
   28 <223> OTHER INFORMATION: synthetic peptide
   30 <220> FEATURE:
   32 <221> NAME/KEY: VARIANT
   33 <222> LOCATION: 1
   34 <223> OTHER INFORMATION: Xaa in position 1 is Lys or Arg
   36 <220> FEATURE:
   38 <221> NAME/KEY: VARIANT
   39 <222> LOCATION: 2
   40 <223> OTHER INFORMATION: Xaa in position 2 is Ala, Gly, Ser or Arg
   42 <220> FEATURE:
   44 <221> NAME/KEY: VARIANT
   45 <222> LOCATION: 3
   46 <223> OTHER INFORMATION: Xaa in position 3 is Leu or Met
   48 <220> FEATURE:
   50 <221> NAME/KEY: VARIANT
   51 <222> LOCATION: 4
   52 <223> OTHER INFORMATION: Xaa in position 4 is Gly or Arg
   54 <220> FEATURE:
   56 <221> NAME/KEY: VARIANT
   57 <222> LOCATION: 5
   58 <223> OTHER INFORMATION: Xaa in position 5 is Pro, Thr, Val, Ser, Gln or Ala
   60 <220> FEATURE:
   62 <221> NAME/KEY: VARIANT
   63 <222> LOCATION: 6
   64 <223> OTHER INFORMATION: Xaa in position 6 is Gly, Ala, Lys, Arg, Gln or Glu
   66 <220> FEATURE:
   68 <221> NAME/KEY: VARIANT
```

**Does Not Comply
Corrected Diskette Needed**

P. 2, 6

```
 69 <222> LOCATION: 8
 70 <223> OTHER INFORMATION: Xaa in position 8 is Thr or Ser
 72 <220> FEATURE:
 74 <221> NAME/KEY: VARIANT
 75 <222> LOCATION: 9
 76 <223> OTHER INFORMATION: Xaa in position 9 is Leu or Ile
 78 <220> FEATURE:
 80 <221> NAME/KEY: VARIANT
 81 <222> LOCATION: 14
 82 <223> OTHER INFORMATION: Xaa in position 14 is Thr, Ser or Val
 84 <220> FEATURE:
 86 <221> NAME/KEY: VARIANT
 87 <222> LOCATION: 15
 88 <223> OTHER INFORMATION: Xaa in position 15 is Ala or Ser
 91 <220> FEATURE:
 93 <221> NAME/KEY: VARIANT
 94 <222> LOCATION: 16
 95 <223> OTHER INFORMATION: Xaa in position 16 is Cys or Ser
 97 <220> FEATURE:
 99 <221> NAME/KEY: DISULFID
100 <222> LOCATION: 16
101 <223> OTHER INFORMATION: disulfide, optional
103 <220> FEATURE:
105 <221> NAME/KEY: VARIANT
106 <222> LOCATION: 17
107 <223> OTHER INFORMATION: Xaa in position 17 is Gln or Leu
109 <220> FEATURE:
111 <221> NAME/KEY: VARIANT
112 <222> LOCATION: 18
113 <223> OTHER INFORMATION: Xaa in position 18 is Gly, Glu or Arg
115 <220> FEATURE:
117 <221> NAME/KEY: VARIANT
118 <222> LOCATION: 20
119 <223> OTHER INFORMATION: Xaa in position 20 is Gly or Arg
121 <400> SEQUENCE: 1
122 Xaa Xaa Xaa Xaa Xaa Xaa Ala Xaa Xaa Gln Thr Pro Trp Xaa Xaa Xaa
123 1               5                   10                  15
125 Xaa Xaa Val Xaa
126                 20
128 <210> SEQ ID NO: 2
129 <211> LENGTH: 20
130 <212> TYPE: PRT
131 <213> ORGANISM: artificial sequence
133 <220> FEATURE:
135 <223> OTHER INFORMATION: synthetic peptide
137 <220> FEATURE:
139 <221> NAME/KEY: DISULFID
140 <222> LOCATION: 16
141 <223> OTHER INFORMATION: disulfide, optional, can form a homodimer with another SEQ
ID NO 2 or a
```

(handwritten annotations: "disulfide" circled; W--> at line 122; "Xaa can only be an amino-acid")

```
142       heterodimer
143         with SEQ ID NO 5
145 <400> SEQUENCE: 2
146 Lys Ala Leu Gly Pro Gly Ala Thr Leu Gln Thr Pro Trp Thr Ala Cys
147 1               5                   10                  15
149 Gln Gly Val Gly
150               20
152 <210> SEQ ID NO: 3
153 <211> LENGTH: 20
154 <212> TYPE: PRT
155 <213> ORGANISM: artificial sequence
157 <220> FEATURE:
159 <223> OTHER INFORMATION: synthetic peptide
161 <400> SEQUENCE: 3
162 Arg Ala Leu Gly Pro Ala Ala Thr Leu Gln Thr Pro Trp Thr Ala Ser
163 1               5                   10                  15
165 Leu Gly Val Gly
166               20
168 <210> SEQ ID NO: 4
169 <211> LENGTH: 25
170 <212> TYPE: PRT
171 <213> ORGANISM: artificial sequence
173 <220> FEATURE:
175 <223> OTHER INFORMATION: synthetic peptide
177 <220> FEATURE:
179 <221> NAME/KEY: VARIANT
180 <222> LOCATION: 1
181 <223> OTHER INFORMATION: Xaa in position 1 is Arg, Lys, Asp or missing
183 <220> FEATURE:
185 <221> NAME/KEY: VARIANT
186 <222> LOCATION: 2
187 <223> OTHER INFORMATION: Xaa in position 2 is Trp, Gly, Lys or Arg
189 <220> FEATURE:
191 <221> NAME/KEY: VARIANT
192 <222> LOCATION: 3
193 <223> OTHER INFORMATION: Xaa in position 3 is Ile, Leu, Val or Met
195 <220> FEATURE:
197 <221> NAME/KEY: VARIANT
198 <222> LOCATION: 4
199 <223> OTHER INFORMATION: Xaa in position 4 is Ile, Val or Leu
201 <220> FEATURE:
203 <221> NAME/KEY: VARIANT
204 <222> LOCATION: 5
205 <223> OTHER INFORMATION: Xaa in position 5 is Leu, Met, Val or Pro
207 <220> FEATURE:
209 <221> NAME/KEY: VARIANT
210 <222> LOCATION: 12
211 <223> OTHER INFORMATION: Xaa in position 12 is Gly or missing
213 <220> FEATURE:
```

```
215 <221> NAME/KEY: VARIANT
216 <222> LOCATION: 13
217 <223> OTHER INFORMATION: Xaa in position 13 is Gly or missing
219 <220> FEATURE:
221 <221> NAME/KEY: VARIANT
222 <222> LOCATION: 14
223 <223> OTHER INFORMATION: Xaa in position 14 is Gly or missing
226 <220> FEATURE:
228 <221> NAME/KEY: VARIANT
229 <222> LOCATION: 15
230 <223> OTHER INFORMATION: Xaa in position 15 is Arg or Lys
232 <220> FEATURE:
234 <221> NAME/KEY: VARIANT
235 <222> LOCATION: 16
236 <223> OTHER INFORMATION: Xaa in position 16 is Met or Leu
238 <220> FEATURE:
240 <221> NAME/KEY: VARIANT
241 <222> LOCATION: 18
242 <223> OTHER INFORMATION: Xaa in position 18 is Ser, Cys or Gln
244 <220> FEATURE:
246 <221> NAME/KEY: VARIANT
247 <222> LOCATION: 20
248 <223> OTHER INFORMATION: Xaa in position 20 is Thr, Val, Ile, Ser or Ala
250 <220> FEATURE:
252 <221> NAME/KEY: VARIANT
253 <222> LOCATION: 21
254 <223> OTHER INFORMATION: Xaa in position 21 is Ser, Gly or Thr
256 <220> FEATURE:
258 <221> NAME/KEY: VARIANT
259 <222> LOCATION: 24
260 <223> OTHER INFORMATION: Xaa in position 24 is Asp, Glu, Cys or Gly
262 <220> FEATURE:
264 <221> NAME/KEY: DISULFID
265 <222> LOCATION: 24
266 <223> OTHER INFORMATION disulfide, optional
268 <220> FEATURE:
270 <221> NAME/KEY: VARIANT
271 <222> LOCATION: 25
272 <223> OTHER INFORMATION: Xaa in position 25 is Gly or missing
275 <400> SEQUENCE: 4
```

Same

```
W--> 276 Xaa Xaa Xaa Xaa Xaa Gly Leu Asn Pro Leu Val Xaa Xaa Xaa Xaa Xaa
     277 1               5                   10                  15
     279 Tyr Xaa Pro Xaa Xaa Ile Leu Xaa Xaa
     280             20              25
     282 <210> SEQ ID NO: 5
     283 <211> LENGTH: 24
     284 <212> TYPE: PRT
     285 <213> ORGANISM: artificial sequence
     287 <220> FEATURE:
```

289 <223> OTHER INFORMATION: synthetic peptide
291 <220> FEATURE:
293 <221> NAME/KEY: DISULFID
294 <222> LOCATION: 23
295 <223> OTHER INFORMATION: disulfide, optional, can form homodimer with another SEQ ID
NO 5 or a
296   heterodimer
297   with SEQ ID NO 2
300 <400> SEQUENCE: 5
301 Trp Ile Ile Pro Gly Leu Asn Pro Leu Val Gly Gly Gly Lys Leu Tyr
302 1   5   10   15
304 Ser Pro Thr Ser Ile Leu Cys Gly
305   20
307 <210> SEQ ID NO: 6
308 <211> LENGTH: 24
309 <212> TYPE: PRT
310 <213> ORGANISM: artificial sequence
312 <220> FEATURE:
314 <223> OTHER INFORMATION: synthetic peptide
316 <400> SEQUENCE: 6
317 Arg Trp Leu Leu Leu Gly Leu Asn Pro Leu Val Gly Gly Gly Arg Leu
318 1   5   10   15
320 Tyr Ser Pro Thr Ser Ile Leu Gly
321   20
323 <210> SEQ ID NO: 7
324 <211> LENGTH: 23
325 <212> TYPE: PRT
326 <213> ORGANISM: artificial sequence
328 <220> FEATURE:
330 <223> OTHER INFORMATION: synthetic peptide
332 <400> SEQUENCE: 7
333 Lys Ile Leu Leu Gly Leu Asn Pro Leu Val Gly Gly Gly Arg Leu Tyr
334 1   5   10   15
336 Ser Pro Thr Ser Ile Leu Gly
337   20
339 <210> SEQ ID NO: 8
340 <211> LENGTH: 23
341 <212> TYPE: PRT
342 <213> ORGANISM: artificial sequence
344 <220> FEATURE:
346 <223> OTHER INFORMATION: synthetic peptide
348 <400> SEQUENCE: 8
349 Arg Leu Leu Leu Gly Leu Asn Pro Leu Val Gly Gly Gly Arg Leu Tyr
350 1   5   10   15
352 Ser Pro Thr Thr Ile Leu Gly
353   20
355 <210> SEQ ID NO: 9
356 <211> LENGTH: 27
357 <212> TYPE: PRT
358 <213> ORGANISM: artificial sequence

Input Set : A:\pto.yf.txt
Output Set: N:\CRF4\09222003\J659324.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,4,5,6,8,9,14,15,(16)17,18,20
Seq#:4; Xaa Pos. 1,2,3,4,5,12,13,14,15,16,18,20,21(24)25
Seq#:9; Xaa Pos. 1,2,3,7,8,9,10,11,12,14,15,16,17,18,19,20,21,22,23,24,25
Seq#:9; Xaa Pos. 26,27
Seq#:15; Xaa Pos. 1,2,5,6,7,8,9,11,13,14,15,16,17,18,19,20,21,22,23,24,25
Seq#:15; Xaa Pos. 26,27,28,29,30,31
Seq#:16; Xaa Pos. 6,21
Seq#:17; Xaa Pos. 6
Seq#:18; Xaa Pos. 6
Seq#:19; Xaa Pos. 5
Seq#:20; Xaa Pos. 5
Seq#:25; Xaa Pos. 5,20
Seq#:32; Xaa Pos. 21,22
Seq#:33; Xaa Pos. 11

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:2; Line(s) 147

9/22/03

Input Set : **A:\pto.yf.txt**
Output Set: **N:\CRF4\09222003\J659324.raw**

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
M:341 Repeated in SeqNo=9
L:775 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
M:341 Repeated in SeqNo=15
L:809 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
M:341 Repeated in SeqNo=16
L:837 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:881 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:903 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:912 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (21) SEQUENCE:
L:917 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (22) SEQUENCE:
L:922 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (23) SEQUENCE:
L:974 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
M:341 Repeated in SeqNo=25
L:1089 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:16
L:1121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0

9/22/03

USPTO TO PROVIDE ELECTRONIC ACCESS TO CITED U.S. PATENT REFERENCES WITH OFFICE ACTIONS AND CEASE SUPPLYING PAPER COPIES

In support of its 21st Century Strategic Plan goal of increased patent e-Government, beginning in June 2004, the United States Patent and Trademark Office (Office or USPTO) will begin the phase-in of its E-Patent Reference program and hence will: (1) **provide downloading capability of the U.S. patents and U.S. patent application publications cited in Office actions** via the E-Patent Reference feature of the Office's Patent Application Information Retrieval (PAIR) system: and (2) **cease mailing paper copies of U.S. patents and U.S. patent application publications with Office actions** (in applications and during reexamination proceedings) except for citations made during the international stage of an international application under the Patent Cooperation Treaty (PCT). In order to use the new E-Patent Reference feature applicants must: (1) obtain a digital certificate and software from the Office; (2) obtain a customer number from the Office; and (3) properly associate patent applications with the customer number. Alternatively, copies of all U.S. patents and patent application publications can be accessed without a digital certificate from the USPTO web site, from the USPTO Office of Public Records, and from commercial sources. The Office will continue the practice of supplying paper copies of foreign patent documents and non-patent literature with Office actions. Paper copies of cited references will continue to be provided by the USPTO for international applications during the international stage.

Schedule

June 2004	TCs 1600, 1700, 2800 and 2900
July 2004	TCs 3600 and 3700
August 2004	TCs 2100 and 2600

All U.S. patents and U.S. patent application publications are available on the USPTO web site. However, a simple system for downloading the <u>cited</u> U.S. patents and patent application publications has been established for applicants, called the E-Patent Reference system. As E-Patent Reference and Private PAIR require participating applicants to have a customer number, retrieval software and a digital certificate, all applicants are strongly encouraged to contact the Patent Electronic Business Center to acquire these items. To be ready to use this system by June 1, 2004, contact the Patent EBC as soon as possible by phone at 866-217-9197 (toll-free), 703-305-3028 or 703-308-6845 or electronically via the Internet at ebc@uspto.gov.

Other Options

The E-Patent Reference function requires the applicant to use the secure Private PAIR system, which establishes confidential communications with the applicant. Applicants using this facility must receive a digital certificate, as described above. Other options for obtaining patents which do not require the digital certificate include the USPTO's free Patents on the Web program (http://www.uspto.gov/patft/index.html). The USPTO's Office of Public Records also supplies copies of patents for a fee (http://ebiz1.uspto.gov/oems25p/index.html). Commercial sources also provide U.S. patents and patent application publications.

For complete instructions see the Official Gazette Notice. USPTO TO PROVIDE ELECTRONIC ACCESS TO CITED U.S. PATENT REFERENCES WITH OFFICE ACTIONS AND CEASE SUPPLYING PAPER COPIES, on the USPTO web site.